

REMARKS

This is a response to Office Action mailed April 1, 2009. A request for a one month extension of the response date with fee is attached.

The claims of the application have been amended or canceled and are submitted in amended form in the attached pages. Reconsideration of the rejection of claims 1, 3-21 is respectfully requested.

The amendments to the claims have been presented to place the invention as a SYSTEM as identified in the introduction of the specification and the clarification of some of the recitations. Former claim 2 has been cancelled and its recitations have been incorporated into amended claim 1. It is believed that all of the amendments to the claims are fully supported within the specification. Consideration of the amended claims is respectfully requested.

It is noted that the Examiner has advised that a timely filed terminal disclaimer may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with the present application. All of the Benesi sole or joint patents or applications are now commonly owned by assignment to FLSMIDTH, and those assignments are on file in the US Patent Office. Common ownership is not an issue in the present prosecution.

It is respectfully submitted that the Examiners' rejections based on double patenting grounds are not well founded. The present applicant is well aware of the scope of claims in

1 the many Benesi or Benesi et al patents and applications. Each of those documents is for
2 distinct inventions which are considered to be new, novel and patentable on their merits. The
3 present application is for an apparatus and method of operating a pressure filter apparatus to
4 accomplish an efficient separation of liquids and solids in a slurry. The present application
5 claims the system of using slurry analysis and additive selection with proper mixing prior to
6 introduction of a batch of slurry into the filter chamber to accomplish the desired separation
7 of liquids and solids in an efficient manner. Applicant will acknowledge that additives such
8 as coagulants or polymers have been used in treating liquids, but the use of those additives in
9 a filtration system that performs an initial analysis of a slurry and then selects the appropriate
10 additives with a dedicated controller, and the mixing of those additives with the slurry prior
11 to introducing the slurry into the filtration chamber is the invention here claimed. No others
12 in the filtration industry have developed an apparatus system or method that can
13 automatically accomplish the desired separation in an efficient manner. Reconsideration of
14 the rejections of the claims is respectfully requested.

15 The Examiner has rejected claims 1-21 on the ground of nonstatutory obviousness-
16 type double patenting as being unpatentable over claims 1-7 of Benesi US 7,011,741. The
17 invention claimed in '741 is the use of "conventional" and "elevated " pressure in a selected
18 program of pressure uses within a filter apparatus.. The filter apparatus is generally the same
19 as that shown in the present application (the inventor is the same person); however, '741 does
20 not suggest or disclose additives and treatment of a slurry prior to entry into the filtration
21 chamber. It is submitted that there is nothing OBVIOUS in the '741 patent that follow on to
22 the present claimed invention. The inventor, Benesi, in '741 is the same inventor in the

1 present application and he is fully aware of what is claimed in '741. Reconsideration of this
2 rejection of claims 1, 3-21 is requested.

3 Claims 1-21 are provisionally rejected on the same ground as being unpatentable over
4 claims 1-14 of copending Appln. No. 10/504,608 (now US patent 7,531,086 issued May 12,
5 2009). The invention claimed in '086 is a structure for providing cleaning of a filter
6 apparatus to avoid contamination. Again the structure in '086 is quite similar to that shown
7 in the present application; however the structure is not what is being claimed – it is the use of
8 additives in treating a slurry and the mixing of those additives under controller control prior
9 to entering the slurry into the filtration chamber that is being claimed in claims 1, 3-21. This
10 paragraph of the Office Action again refers to the claims of '741 which, as stated above, are
11 not pertinent to the claims here under consideration. Reconsideration of this rejection is
12 requested.

13 On Page 4 of the Office Action the Examiner cites the provisions of 35 USC 103(a)
14 and asserts that the application names “joint inventors”; that is not the case here. This
15 application is in the name of Steve C. Benesi the sole inventor (now assigned to
16 FLSMIDTH). The Office Action then rejects claims 1-15 under 35 USC 103(a) as being
17 unpatentable over Benesi 6,159,359 in view of Benesi 5,462,677 and Thogho et al 5,382,356.

18 The preamble of the claims here presented includes the several elements of most of
19 the Benesi patents for the purpose of defining the structure where the slurry treated with
20 additives is to be filtered. The structure of the Benesi patents is recited to get the proper
21 environment for the combination of elements that comprise the SYSTEM of the present
22 claims. Thogho does describe the use of certain additives for flocculation and the like, but

1 none of the Benesi patents nor Thogho suggest the analysis of the slurry and the addition of
2 selected additives, the mixing, the temperature control, and then the insertion into the
3 filtration chamber for separation of liquids from solids The Benesi patents suggest that
4 additives can be used in the separation of a slurry into its constituents, but none of the Benesi
5 patents suggest a SYSTEM as claimed in the present application. Individual elements of the
6 system are known and have been described in function in other Benesi patents, but none of
7 those patents or other known publications have suggested the novel combination of elements
8 in the combination here claimed.

9 While it may seem obvious to the Examiner to combine several features of prior art
10 disclosures, it is not shown that any others have suggested the combination of elements into
11 the system of the present invention. The applicant's claim is that the analysis of a slurry can
12 be advantageous to the selection of certain additives, and that the mixing of those additives in
13 a desired and determined manner can assist in the eventual efficient separation of liquids and
14 solids in a slurry. That is the ultimate objective of the present system apparatus and it
15 method of use that improves the efficiency of filtering a slurry into its components in the
16 most expeditious manner.

17 Reconsideration of the rejection of claims 1, 3-15 under 35 USC 103(a) is requested.
18 The suggestion that combination of the Benesi disclosures and the Thogho et al disclosure
19 would make the present invention obvious is not believed to be well founded.

20 Claims 16-21 are rejected under 35 USC 103(a) as being unpatentable over Thogho et
21 al '356 in view of Benesi '359 and Benesi '677. It is submitted that Thogho et al does not
22 disclose the operation of a pressure filter, that disclosure is for the usual sewage treatment

1 system that is not a pressure filter. While sewage treatment systems use analysis and
2 controlled additions of coagulants, there is no suggestion of the use of the Thogho et al in a
3 pressure filter apparatus as here claimed. It is the SYSTEM of the present invention that
4 provides for analysis of the slurry and the selection of additives (coagulants and flocculants,
5 etc) under the control of a controller that makes the SYSTEM effective in the efficient
6 separation of liquids from solids in a slurry being filtered. Thogho et al does not suggest that
7 their process could be used in a pressure filter.

8 While the Examiner has identified selected parts of the present inventor's patents as
9 suggesting individual elements of the combination claimed in the SYSTEM of the present
10 apparatus and the method of its operation, those selected parts are well known to the present
11 applicant and, even with that knowledge, it took the present applicant a lot of inventive skill
12 to conceive the present invention and place it into operation. The Benesi SYSTEM as here
13 claimed evolved from seeing a need to pretreat the slurry in an analytical manner, then the
14 selection of the appropriate additives, then the mixing of those additives with the slurry, and
15 the further adjustment of the temperature and pressure of the slurry and filtration chamber to
16 get the proper balance for effective separation within the filter apparatus in the most efficient
17 manner. All of that series of steps is believed to be NEW, NOVEL AND PATENTABLE to
18 the present applicant. Reconsideration of the rejection of claims 16-21 under 35 USC 103(b)
19 is requested.

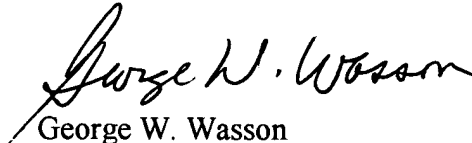
20 Claims 1 and 16 are independent claims that are believed to recite inventive structure
21 or method steps. Claims 3-15 and 17-21 are dependent for claims 1 or 16 and are believed to
22 recite allowable additions to the base independent claims. Each dependent claim adds an

1 element or a step that defines a patentable advance in the base invention.

2 It is noted that there have been several suggestions of the filing of a terminal
3 disclaimer could overcome actual or provisional rejections based on double patenting;
4 however, such a terminal disclaimer would diminish the term of a patent that should issue
5 form this application. The filing of such a terminal disclaimer is being considered but will
6 wait further examination of the amended claims now presented.

7 If a discussion of any of the elements of this response with Applicant's attorney
8 would assist in the further prosecution of this application , the Examiner is requested to
9 contact the telephone, Fax or email addresses listed below.

10
11 Respectfully submitted,

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